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## REPORT ON ELECTRIC LIGHTING INSTALLATION. No. 555

of Seattle Wash Date of First Survey Sept 6 Date of Last Survey Dec 20 No. of Visits 30  
 on the ~~Iron~~ Steel Screw Steamer "WEST HAVEN" Port belonging to Seattle  
 Built at Seattle By whom Thinner & Eddy Corporation When built 1917  
US Shipping Board Emergency Fleet Owners' Address ✓  
 No. 10 Electric Light Installation fitted by Thinner & Eddy Corporation When fitted 1917

## DESCRIPTION OF DYNAMO, ENGINE, ETC.

15 K.W. - 125 Volt GENERAL ELECTRIC CO'S COMPOUND WOUND GENERATORS DIRECT  
CONNECTED TO SINGLE CYLINDER RECIPROCATING ENGINE

Capacity of Dynamo 125 Amperes at 125 Volts, whether continuous or alternating current D.C.

Where is Dynamo fixed ON PLATFORM IN ENG. ROOM Whether single or double wire system is used DOUBLE

Position of Main Switch Board ON GENERATOR PLATFORM Moving switches to groups TWELVE of lights, &c., as below

Positions of auxiliary switch boards and numbers of switches on each ONE IN FRONT OF PILOT HOUSE - 6 SWITCHES - TWO IN FORT PASSAGE  
RWD. DECK HOUSE - 6 SWITCHES EACH - ONE IN STBD. AND ONE IN FORT PASSAGE OF MIDSHIP DECK HOUSE, 4 & 6 SWITCHES

RESPECTIVELY - ONE IN PASSAGE OF CREWS QUARTERS, 6 SWITCHES - ONE IN ENG. ROOM, 8 SWITCHES - ONE IN  
RWD. PASSAGE IN FORECASTLE, 4 SWITCHES

Fuses are fitted on main switch board to the cables of main circuit YES and on each auxiliary switch board to the cables of auxiliary

circuits YES and at each position where a cable is branched or reduced in size YES and to each lamp circuit YES

Whether vessel is wired on the double wire system are fuses fitted to both flow and return wires or cables of all circuits including lamp circuits YES

Are the fuses of non-oxidizable metal YES and constructed to fuse at an excess of 25 per cent over the normal current

Are all fuses fitted in easily accessible positions YES Are the fuses of standard dimensions YES If wire fuses are used

Are permanent instructions fitted on or near each switch board giving particulars of proper size of fuse for each circuit

Are all switches and fuses constructed of incombustible materials and fitted on incombustible bases YES

Total number of lights provided for 311 arranged in the following groups:-

<u>37</u>	lights each of <u>40 WATTS</u>	candle power requiring a total current of <u>11.84</u>	Amperes
<u>33</u>	lights each of <u>40</u>	candle power requiring a total current of <u>10.58</u>	Amperes
<u>65</u>	lights each of <u>40</u>	candle power requiring a total current of <u>22.40</u>	Amperes
<u>27</u>	lights each of <u>40</u>	candle power requiring a total current of <u>8.64</u>	Amperes
<u>19</u>	lights each of <u>40</u>	candle power requiring a total current of <u>4.5</u>	Amperes
<u>1</u>	Mast head light with <u>1</u> lamps each of <u>40 WATT</u>	candle power requiring a total current of <u>0.32</u>	Amperes
<u>2</u>	Side light with <u>1</u> lamps each of <u>40</u>	candle power requiring a total current of <u>0.64</u>	Amperes
<u>28</u>	Cargo lights of <u>4 - 40 WATT</u>	candle power, whether incandescent or arc lights <u>INCANDESCENT</u>	

Are lights, what protection is provided against fire, sparks, &c.

Where are the switches controlling the masthead and side lights placed IN FRONT OF CHART ROOM

## DESCRIPTION OF CABLES.

	Amperes	comprised of	wires, each	mill dia	B.S.G.	S.W.G. diameter	square inches total sectional area
Main cable carrying <u>125</u> See above	<u>125</u>	<u>27</u>	<u>7</u>	<u>#11</u>	<u>223.587</u>	<u>21.600</u>	<u>28.672</u>
Branch cables carrying <u>50</u>	<u>50</u>	<u>7</u>	<u>7</u>	<u>#14</u>	<u>28.672</u>	<u>26.250</u>	<u>18.207</u>
Branch cables carrying <u>30</u>	<u>30</u>	<u>7</u>	<u>7</u>	<u>#16</u>	<u>16.510</u>	<u>4.096</u>	<u>4.096</u>
Wires to lamps carrying <u>2.56</u>	<u>2.56</u>	<u>1</u>	<u>1</u>	<u>#14</u>	<u>4.096</u>	<u>4.096</u>	<u>4.096</u>
Cargo light cables carrying <u>4.11</u>	<u>4.11</u>	<u>1</u>	<u>1</u>	<u>#14</u>	<u>4.096</u>	<u>4.096</u>	<u>4.096</u>

## DESCRIPTION OF INSULATION, PROTECTION, ETC.

NATIONAL ELECTRIC CODE STANDARD, DOUBLE BRAID

How are the joints in cables, how made, insulated, and protected SOLDERED, TAPED WITH SPLICING COMPOUND, FRICTION TAPE  
AND PAINTED WITH P.&B. ELECTRICAL PAINT

Are all the joints of cables thoroughly soldered, and the flux used not containing acids or other corrosive substances YES Are all joints in accessible

positions, none being made in bunkers, cargo spaces, or spaces which may at any time be used for carrying cargo, stores, or baggage NO

Are there any joints in or branches from the cable leading from dynamo to main switch board NO

How are the cables led through the ship, and how protected IN CONDUIT, PIPES AND MOULDING



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Foundation



**DESCRIPTION OF INSULATION, PROTECTION, ETC.—continued.**

Are they in places always accessible No

What special protection has been provided for the cables in open alleyways or where exposed to weather or moisture METAL CONDUIT CASING

What special protection has been provided for the cables near galleys or oil lamps or other sources of heat CONDUIT CASING

What special protection has been provided for the cables near boiler casings CONDUITS

What special protection has been provided for the cables in engine room "

How are cables carried through beams CONDUITS through bulkheads, &c. CONDUITS

How are cables carried through decks "

Are any cables run through coal bunkers YES or cargo spaces YES or spaces which may be used for carrying cargo, stores, or baggage YES

If so, how are they protected WOODEN BOXES & METAL CONDUITS

Are any lamps fitted in coal bunkers or spaces which may at times be used for cargo, coals, or baggage W.T. SWITCH & RECEPTACLE

If so, how are the lamp fittings and cable terminals specially protected "

Where are the main switches and fuses for these lights fitted IN HOUSES ON UPPER DECK

If in the spaces, how are they specially protected "

Are any switches or fuses fitted in bunkers NO

Cargo light cables, whether portable or permanently fixed PORTABLE How fixed "

In vessels fitted on the single wire system, how is the dynamo terminal fixed to the hull of vessel "

How are the returns from the lamps connected to the hull "

Are all the joints with the hull in accessible positions "

Is the installation supplied with <sup>TWO</sup> ~~1~~ voltmeters YES, and with <sup>TWO</sup> ~~1~~ amperemeters YES, fixed ON SWITCHBOARD

**VESSELS BUILT FOR CARRYING PETROLEUM.**

In vessels built for carrying petroleum, are all switches and fuses fitted in positions not liable to the accumulation of petroleum vapour or gas "

Are any switches, fuses, or joints of cables fitted in the pump room or companion "

How are the lamps specially protected in places liable to the accumulation of vapour or gas "

The copper used is guaranteed to have a conductivity of not less than that of the Engineering Standards Committee's standard; and the wires are protected by tinning from the sulphur compounds present in the insulating material.

Insulation of cables is guaranteed to have a resistance of not less than 600 megohms per statute mile at 60° Fahrenheit after 24 hours' immersion in water, the test being made after one minute's electrification at not less than 500 volts and while the cable is still immersed.

The foregoing statements are a correct description of the Electric Light installation fitted by us on this vessel and we declare that it is at this date in good order and safe working condition.

G. N. McCallum

Electrical Engineers

Date Dec 5-1917

**COMPASSES.**

Distance between dynamo or electric motors and standard compass 19 FT.

Distance between dynamo or electric motors and steering compass 11½ FT.

The nearest cables to the compasses are as follows:—

A cable carrying <u>.32</u>	Amperes <u>TWO</u>	feet from standard compass <u>ONE</u>	feet from steering compass <u>"</u>
A cable carrying <u>"</u>	Amperes <u>"</u>	feet from standard compass <u>"</u>	feet from steering compass <u>"</u>
A cable carrying <u>"</u>	Amperes <u>"</u>	feet from standard compass <u>"</u>	feet from steering compass <u>"</u>

Have the compasses been adjusted with and without the electric installation at work at full power YES

The maximum deviation due to electric currents, etc., was found to be NIL degrees on VARIOUS course in the case of the standard compass and " degrees on " course in the case of the steering compass.

Skinner & Eddy Corp.  
by G. N. McCallum Ch. Engr. Builder's Signature. Date Dec 5-1917

**GENERAL REMARKS.**

The Electric Lighting installation of good quality and workmanship tested under working conditions and found satisfactory. Eligible, in my opinion, to be noted in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. Elec. light

JWD  
27/2/18

James Fowler  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute Elec. Light

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.